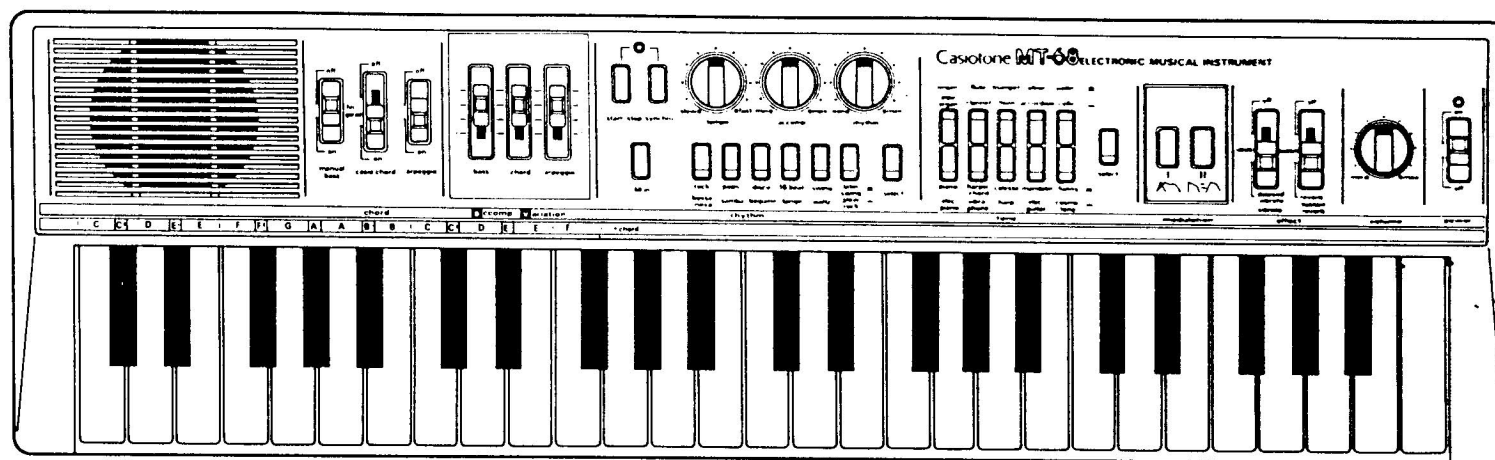


Casiotone MT-68

Operation Manual 1

Manual de Operación 29



Casiotone MT-68

ELECTRONIC MUSICAL INSTRUMENT

Thank you very much for purchasing the Casiotone MT-68. We hope it gives you many years of enjoyment. The Casiotone MT-68 is a valuable and exciting introduction to the world of music, delighting both the player and the listener with its many talents. Its forte is the Accompaniment Variation system that allows the player to choose four different patterns of bass, chord and arpeggio for each of the 12 built-in rhythms. 20 instruments and sounds are represented on the Casiotone MT-68 and, with the Modulation effect, you can expand the effect of each one. See how easy it is to find your way around its 49 key layout by reading this manual — by the last page you'll have entered a new world of musical pleasure.

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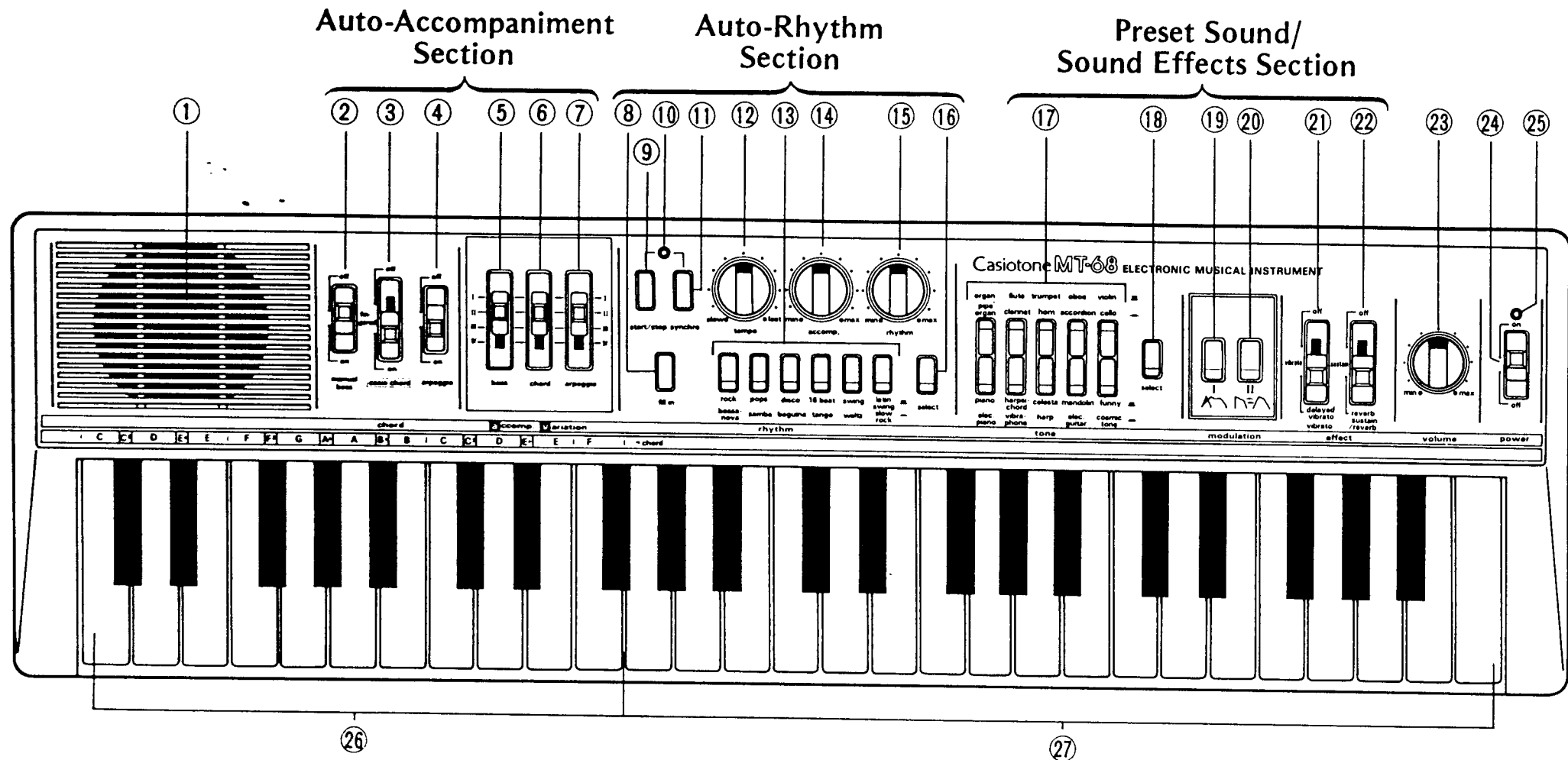
PART 1

Casiotone MT-68 — Outline and Components

- 1-1 Guide to Each Part**
- 1-2 Rear Panel (external equipment connections and pitch control)**
- 1-3 Power Supply**
- 1-4 Casiotone MT-68 — Starting to Play**

1-1 Guide to Each Part

The function and operation of each section is given in subsequent pages.



- ① Built-in speaker
- ②③ Main volume control knob
- ④ Power switch
- ⑤ Power indicator lamp

Auto-Accompaniment Section → See page 18

- ② Manual bass switch
- ③ Casio chord switch
- ④ Arpeggio switch
- ⑤ Bass variation switch
- ⑥ Chord variation switch
- ⑦ Arpeggio variation switch
- ⑧ Accompaniment keyboard

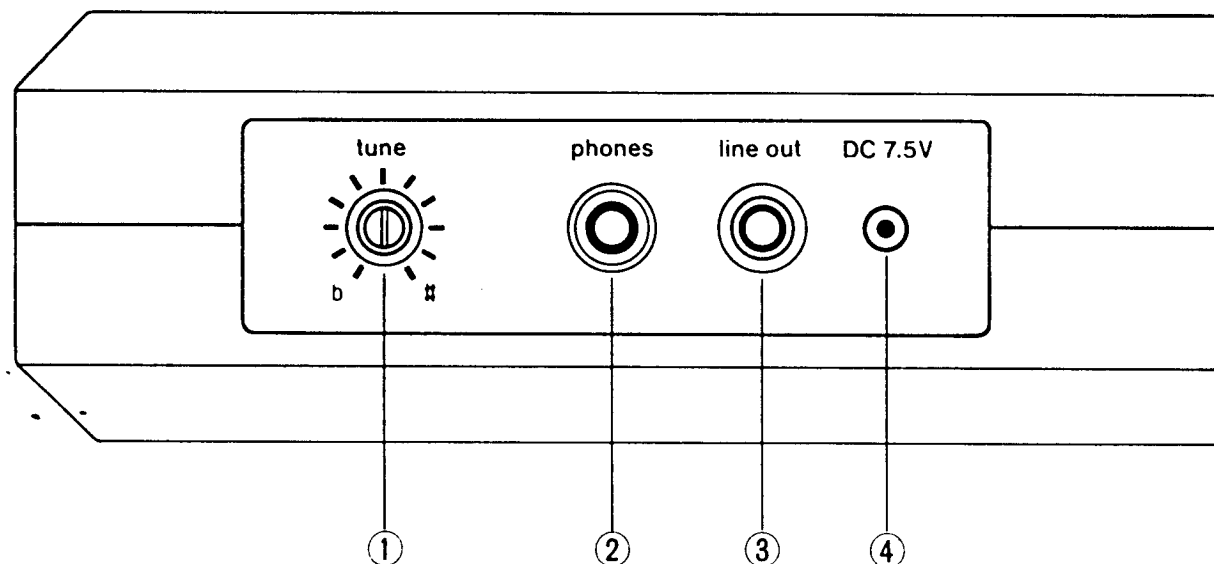
Auto-Rhythm Section → See page 14

- ⑧ Fill-in button
- ⑨ Start/stop button
- ⑩ Tempo indicator lamp
- ⑪ Synchro start button
- ⑫ Tempo control knob
- ⑬ Rhythm selection button
- ⑭ Accompaniment volume control knob
- ⑮ Rhythm volume control knob
- ⑯ Select button

Preset Sounds/Sound Effect Section → See page 11

- ⑰ Sound selection button
- ⑱ Select button
- ⑲ Modulation I
- ⑳ Modulation II
- ㉑ Vibrato switch
- ㉒ Sustain/reverb. switch
- ㉓ Melody keyboard

1-2 Pear Panel (external equipment connections and pitch control)



① Pitch Control Knob

This adjusts the entire keyboard within 1/4 tone (50 cents) and gives easy tuning with other instruments.

② Headphone Jack

If a headphone (optional) is connected, the speaker sound will be cut off automatically and playing can be enjoyed privately. Also, by connection of an FM transmitter (optional), the sound of the Casiotone will be transmitted to remote FM receiving apparatus and can be heard through the external speakers of an FM radio or other audio equipment.

③ Output Jack

To get more powerful volume from the Casiotone, connect it to audio equipment or a keyboard amplifier, etc. and external speakers. The volume can be adjusted by using the volume control knob on the Casiotone.

④ AC Adaptor jack

Plug in an AC adaptor (optional) and the unit can be driven on AC power. Also, if a car battery adaptor (optional) is plugged in, power can be taken from the cigarette lighter socket of your car.

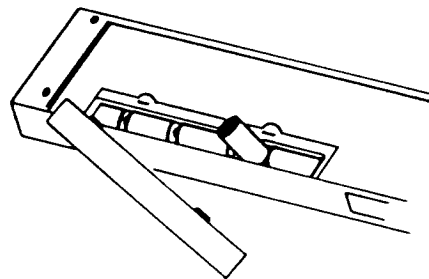
1-3 Power Supply

The MT-68 can be driven on both AC and DC power.

DC power

Dry batteries:

- The Casiotone MT-68 works on five D size (SUM-1) manganese dry batteries.
- Weakened batteries will result in lower volume or poor tonal quality. In this case, insert new batteries.



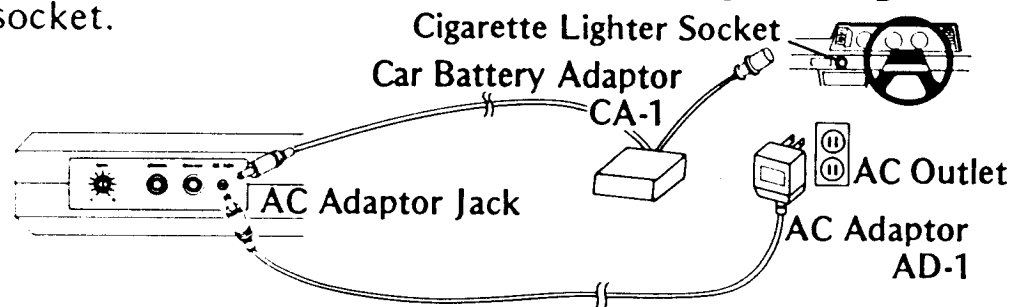
(Battery Replacement)

Open the battery compartment cover on the bottom of the unit and remove dead batteries. Install new ones making sure the + and - terminals are facing correctly.

- * It is advisable to replace all five batteries at the same time for longer battery life.
- * For battery life, refer to the specifications.

Car battery adaptor:

With the optional car battery adaptor CA-1, you can take power from your car battery via a cigarette lighter socket.



AC power

To connect the unit to an AC outlet, the AC adaptor (optional) is required.

Use only an adaptor with the same voltage rating (100, 117, 220 or 240V) as your power supply to prevent component damage. Plug the AC adaptor into the AC outlet and the cord into unit. This automatically cuts off battery power supply.

- * When batteries are not used for a long period of time, it is advisable to remove them from the battery compartment.

(Battery leakage may occur and damage electrical parts.)

CAUTION

- * WHERE USED FROM THE MAINS THIS UNIT MUST ONLY BE USED WITH A CASIO MAINS ADAPTOR TO PREVENT THE RISK OF DAMAGE.
- * When the adaptor is left connected to an AC outlet, it may warm up, but this is quite normal. Disconnect the adaptor whenever possible, especially if not used for a long time.

The following misuse may lead to battery burst.

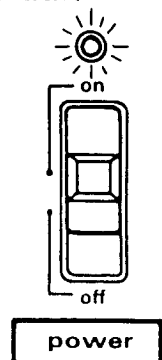
1. Use of an AC adaptor other than a genuine Casio adaptor.
2. Insertion of batteries with incorrect polarities (+, -).

1-4 Casiotone MT-68—Starting to Play

The Casiotone has various functions but, first of all, let's try a few sounds at random. After mastering these basic operations please read each section of this manual.

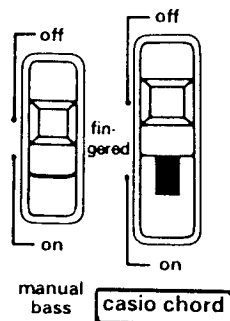
1 Turn the Power Switch on.

- Turn the power switch on. The power indicator lamp will come on.



2 Turn the Casio Chord Switch off.

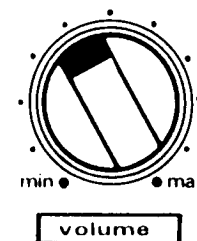
- * This switch should be set to "OFF" position except using the Casio Chord Function.



3 Turn the Manual Bass Switch off.

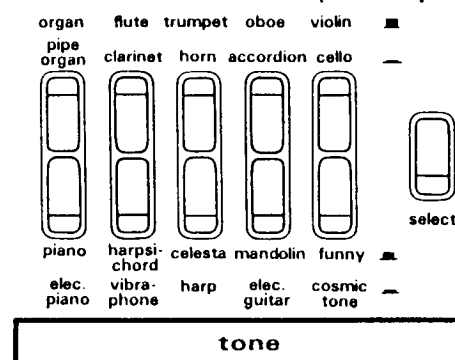
4 Adjust the volume.

- Set the main Volume Control Knob to an initial position as illustrated on the right.



5 Now, start playing.

- Adjust the volume to a comfortable level while pressing the keys.
- Experiment with 20 preset sounds by using the Sound Selection Buttons (See page 11 for details).



Auto Power-off Function

In order to save power when the power switch is left on, the power will shut off automatically after approximately 6 minutes, if you do not touch the keys. Turn the power switch off and then on again if you want to resume play after auto power-off.

PART 2

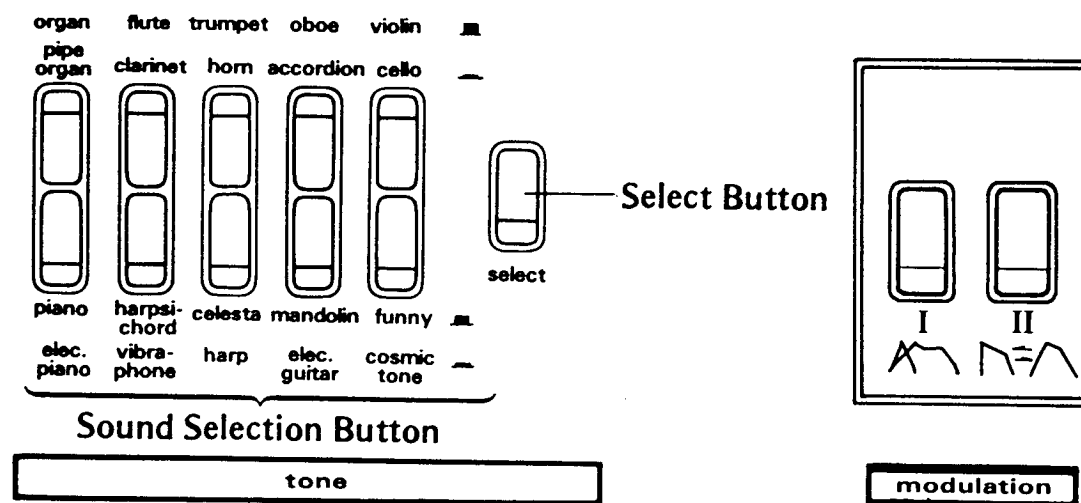
Preset Sounds/Sound Effects/Auto-Rhythms

2-1 Use of the Preset Sound/Sound Effect Section

2-2 Operating the Auto-Rhythm Section

2-3 Preset Sounds and their Note Ranges

2-1 Use of the Preset Sound/Sound Effect



●Selecting a Preset Sound

Press the Sound Selection Button of the desired preset sound. When the Select Button is pressed, the preset sound written in black letters is selected.

* When two or more Sound Selection Buttons are pressed, only one of them is selected.

●Modulation

The Modulation effect changes the envelope curve* of the preset sound. With this function you can get a wide variety of sounds.

Modulation I ... Divides the sound wave of the preset sound and delays the output of one wave.

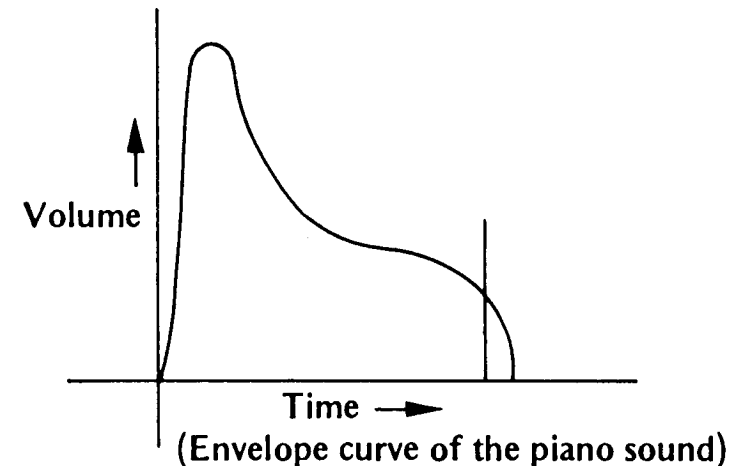
Modulation II ... Changes the envelope curve of the preset sound.

* Modulation I and II can be switched on together.



*** Envelope Curve:**

Envelope is the variation in the sound intensity from the moment the sound is produced until it fades out. Volume variation over a specific period of time is graphically represented as shown in the figure and this is called the “envelope curve”. The envelope curve differs according to the musical instrument. For example, with a violin the sound volume gradually becomes higher, whereas a guitar sound reaches its peak the moment the string is plucked and then drops. If an envelope curve of a harp is applied to a flute sound, it will sound similar to the harp.



2-1 Use of the Preset Sound/Sound Effect

●Adding the Vibrato Effect

The vibrato effect slightly vibrates the sound to give it a delicate, emotional expression.

Two types of vibrato effect can be obtained with the Vibrato Switch.

OFF When the vibrato effect is not required.

ON For a normal vibrato effect.

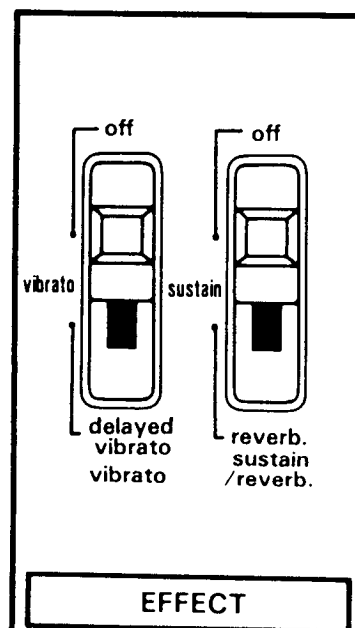
DELAYED To give a vibrato effect that chases the original sound.

●Sustain/Reverb. Effects

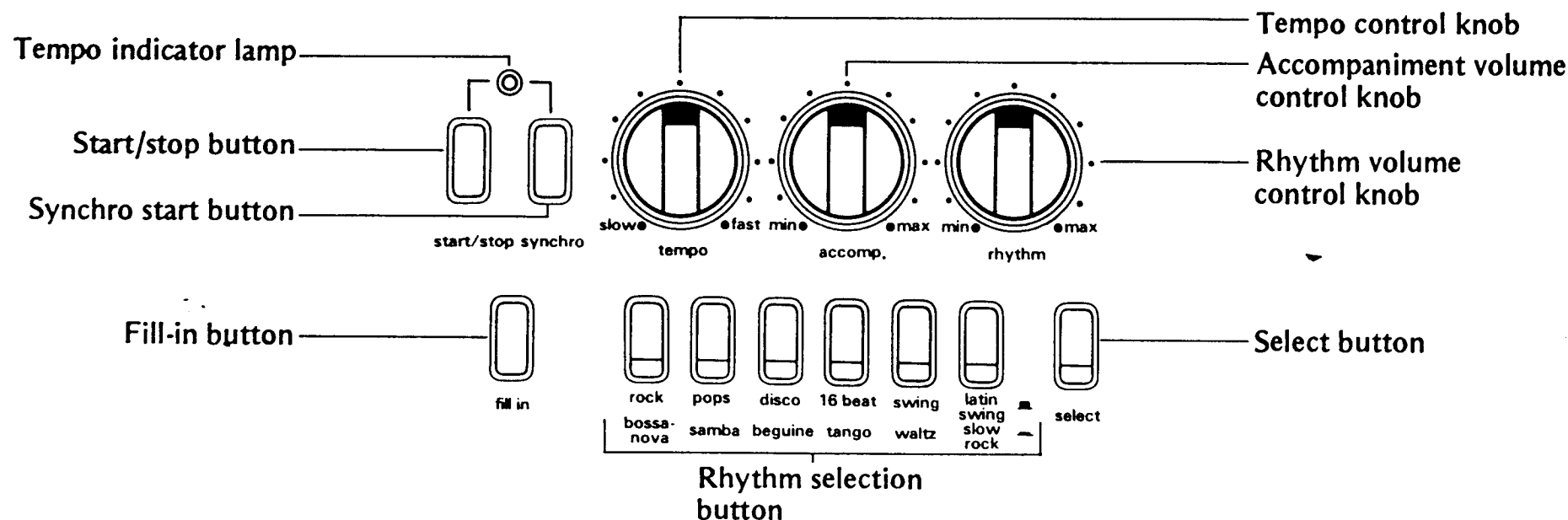
With the switch at "SUSTAIN", sounds linger even after your fingers are removed from the keyboard.

The Reverb. effect will give your performance the ambience of a large concert hall.

* Sound effects (Modulation I and II, Vibrato, Sustain/Reverb.) cannot be added to accompaniment sounds (bass, chord and arpeggio).



2-2 Operating the Auto-Rhythm Section



●Choosing your rhythm

Select the desired rhythm using the Rhythm Selection Buttons. When the Select Button is pressed the rhythm written in black letters is selected.

Note: Even if several Rhythm Selection Buttons are pressed at the same time, the rhythms are not combined.

●Fill-in Button

If pressed during rhythm play, fill-in (percussive grace) will be delivered.

●Start/Stop Button

Each time you want the rhythm to start or stop, simply press this button.

2-3 Preset Sounds and their Note Ranges

●List of Preset Sounds

The Casiotone MT-68 has 20 kinds of preset sounds. Note ranges and sounds are varied to achieve individual preset sound characteristics.

How to Read the Chart

Note Range: Codes (A,B) in the note range column are shown below. "o" symbol denotes a sustained sound (a sound which continues as long as the keys are being pressed). A blank denotes a fading sound (a sound which fades even though the keys remain pressed). Also, "△" denotes a tremolo sound.

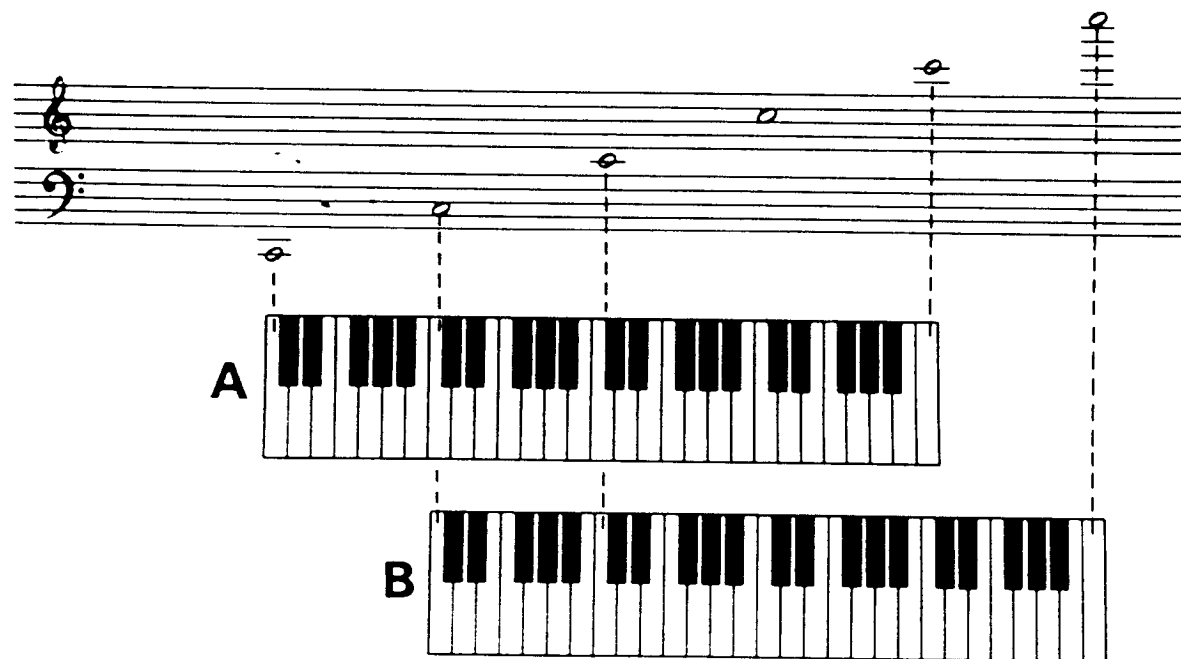
Preset Sound Names	Note Change	Sound
organ	A	○
flute	B	○
trumpet	A	○
oboe	A	○
violin	B	○
piano	A	
harpsichord	B	
celesta	B	
mandolin	A	△
funny	A	

Preset Sound Names	Note Range	Sound
pipe organ	A	○
clarinet	A	○
horn	A	○
accordion	A	○
cello	A	○
electric piano	A	
vibraphone	A	
harp	A	
electric guitar	A	
cosmic tone	A	○

2-3 Preset Sounds and their Note Ranges

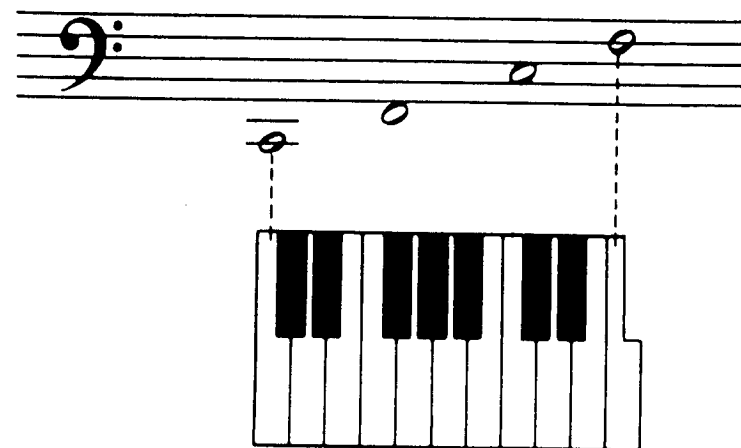
● Note Range

- The note range of the whole keyboard.
(Casio Chord Switch and Manual Bass Switch at "OFF".)



- A trumpet, oboe, piano, mandolin, funny, pipe organ, clarinet, horn, accordion, cello, electric piano, vibraphone, harp, electric guitar, cosmic tone.
- B organ, flute, violin, harpsichord, celesta.

- Accompaniment Keyboard
(Manual Bass Switch at "ON".)



* The sounds of the accompaniment keyboard (chords, arpeggio, bass) vary with the Rhythm Selection or the Accompaniment Variation, regardless of Auto Rhythm.

PART 3

Auto-Accompaniment (Casio Chord System)

3-1 Putting the Auto-Accompaniment Section into Play

3-2 Variations with Auto-Accompaniment

3-1 Putting the Auto-Accompaniment Section Into Play

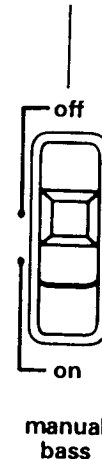
Keyboards are generally played by using the right hand for the melody and the left hand for the accompaniment. This is very difficult for beginners. But with Casio's Auto-Accompaniment feature (Casio Chord System), anybody can play chords, bass, arpeggio with rhythm simply by using one finger.

●Manual Bass Switch

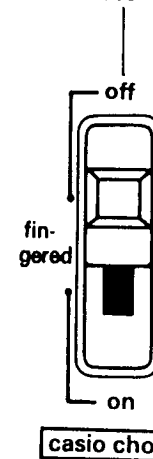
When the Manual Bass Switch is on, all the keys on the accompaniment keyboard (lower one-and-a-half octaves) become bass.

- * This switch only functions if the Casio Chord Switch is set to the "OFF" position.
- * Only one note can be played at one time when the unit is set to Manual Bass Function. If two or more notes are played on the accompaniment keyboard, only the lowest note is produced.
- * The sounds of Manual Bass vary with the Rhythm Selection or the Bass Variation, regardless of Auto-Rhythm.

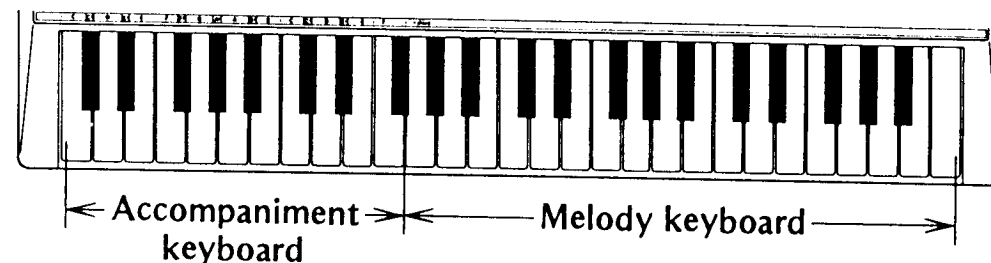
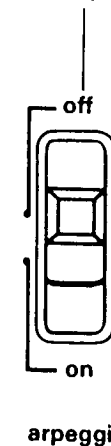
Manual
bass switch



Casio Chord
switch



Arpeggio
switch



3-1 Putting the Auto-Accompaniment Section Into Play

●Casio Chord Switch

Turns Auto-Accompaniment on and off.

OFF For normal playing without auto-accompaniment.

- * Manual Bass Switch should be set to the "OFF" position for normal playing.

- * The Auto-Accompaniment Switches other than the Manual Bass Switch do not function in this position.

FINGERED . For auto-accompaniment by playing the chord. (See page 23)

ON For auto-accompaniment using the one-finger method. (See page 21)

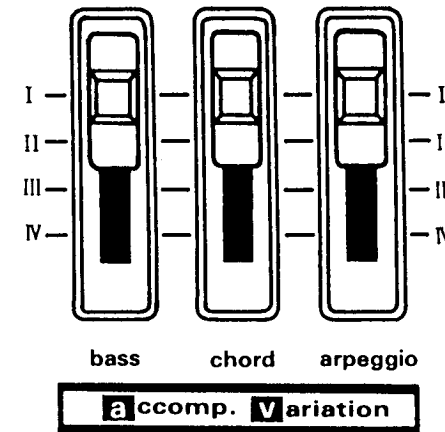
- * If the Casio Chord Switch is set to the "FINGERED" or "ON" position, the lower one-and-a-half octaves become exclusively accompaniment keyboard keys. Accompaniment (chord and bass sound) will be synchronized with the rhythm and will continue to sound, even if your fingers are removed from the keys, until the next keys are pressed.

- * Auto-Accompaniment does not function without Auto-Rhythm, and continuous sound will be produced.

●Arpeggio Switch

Adds arpeggio sound to Auto-Accompaniment.

Use of the Accompaniment Variation Switches



Four kinds (I to IV) of bass, chord and arpeggio patterns can be selected for each rhythm. Set each switch on the Accompaniment Variation Section to any position according to your selection of accompaniment style.

- * These switches do not function if the Casio Chord Switch and/or the auto-rhythm are set to "OFF".

- * The sounds of bass, chord and arpeggio vary with the Rhythm Selection or the Accompaniment Variation, regardless of Auto-Rhythm.

- * Set all three switches to position I for a typical accompaniment style of each rhythm.

3-2 Variations with Auto-Accompaniment

●For Auto-Accompaniment using the one-finger method

(1) Turn the Casio Chord Switch on.

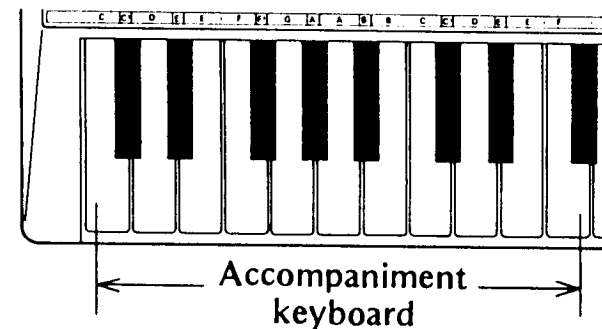
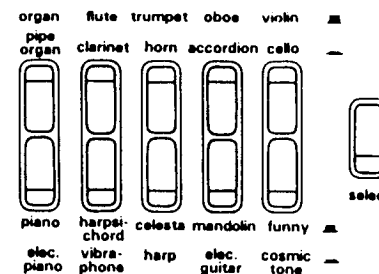
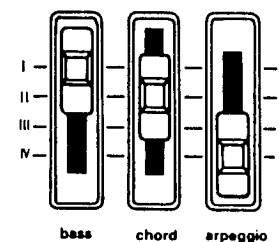
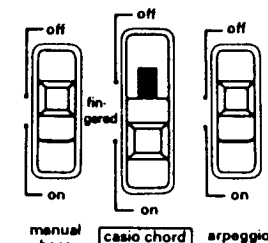
* The other four switches may be in any position.
Select according to the desired effects.

(2) Set the Accompaniment Variation Switches to any position according to your accompaniment style.

(3) Start any one of the Auto-Rhythms.

(4) Press one of the accompaniment keyboard keys. A major chord and bass sound will be automatically played along with the rhythm.

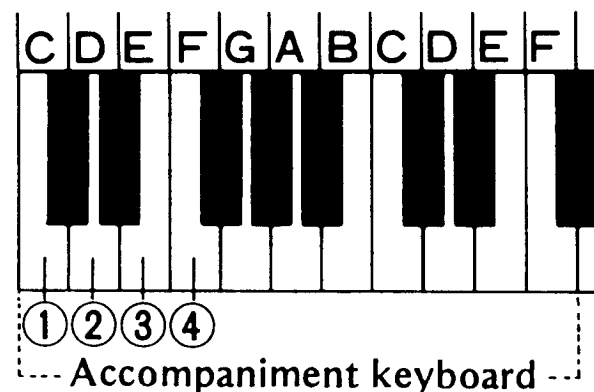
* When the Arpeggio Switch is set to "ON", the arpeggio sound will also be added.



Relationship of the chord to the fingered keyboard keys

When the Casio Chord Switch is on, if one accompaniment keyboard key is pressed, it becomes the major chord of that note and the appropriate bass sound is played automatically. When you want to make this a minor chord, press any key on the accompaniment keyboard which is to the right of that note. Under the same conditions, if one more key (three keys in total) is pressed, it becomes a seventh chord. If four keys are pressed, it will be a minor seventh chord.

* When the Arpeggio Switch is set to "ON", the appropriate arpeggio sound is added automatically.



(Example)

C (C major chord) — Press ①.

Cm (C minor chord) — Press ①, ② together.

C₇ (C seventh chord) — Press ①, ②, ③ together.

Cm₇ (C minor seventh chord) — Press ①, ②, ③, ④ together.

* Not only ②, ③ and ④, but any black or white keys can be used as long as they are to the right of ①.

Note: When the Casio Chord Switch is on, the automatically played chords are one of four kinds — major, minor, seventh or minor seventh.

3-2 Variations with Auto-Accompaniment

●For Auto-Accompaniment by playing chords.

- (1) Set the Casio Chord Switch to "FINGERED".
 - (2) Select and start an Auto-Rhythm.
 - (3) Play a chord using the Accompaniment keyboard keys. The chord (with arpeggio) and bass sounds will be played automatically along with the rhythm.
- * The volume of the accompaniment sound can be adjusted by the Accompaniment Volume Control Knob.

When you play a maj, min, 7th, min 7th, maj 7th, min 7th flat fifth, dim or aug chord with the Casio Chord Switch at "fingered", the bass pattern of the respective chord will be played automatically. However, when a chord other than mentioned above is played, only the root sound or the lowest note of that chord will be played with the rhythm.

- If Auto-Rhythm is in the synchro start "condition", Auto-Accompaniment will start along with the rhythm the moment the accompaniment keys are pressed. This makes it effective when playing an introduction to music, or a melody to which the accompaniment is added along the way.

Troubleshooting Chart

Symptom	Possible cause	Remedy
Sound does not come out of the speaker even when pressing the keyboard keys.	1. Power Switch is off. 2. Main Volume Control is too low. 3. Headphone is connected. 4. Auto Power-off has activated.	1. Turn the Power switch on. 2. Turn up the Main Volume Control. 3. Disconnect the headphone. 4. Turn the power switch off and then on again.
No rhythm emerges.	1. Main Volume Control is too low. 2. Rhythm Volume Control is too low.	1. Turn up the Main Volume Control. 2. Turn up the Rhythm Volume Control.
No Accompaniment sound emerges.	1. Main Volume Control is too low. 2. Accompaniment Volume Control is too low.	1. Turn up the Main Volume Control. 2. Turn up the Accompaniment Volume Control.
Rhythm synchro start does not function.	• Keys other than accompaniment keys have been pressed (lower 1.5 octaves).	• Start on the accompaniment keyboard.
Noise is present.	• Noise from electric appliances such as a refrigerator or washing machine.	• Use an outlet which is located at a distance from the appliance causing the noise.
Radio or television interference.	• When there is a strong broadcast in the area.	• Try changing the location of the instrument.

Troubleshooting Chart

Symptom	Possible cause	Remedy
Distortion when volume is increased.	Since the built-in speaker is small, when the sound range is low or the volume is extremely high, complete reproduction is sometimes difficult.	Turn the volume down or connect an external speaker.
Sound is not produced when an external amplifier is connected.	- The Volume Control on the Casiotone is too low. - The connection cord is bad.	- Turn up the Volume Control. - Replace the connection cord.

Care of Your Unit

1 Avoid heat, humidity or direct sunlight.

Do not overexpose the unit to direct sunlight, place near an air conditioner, or in any extremely hot place.

2 Take care not to drop the unit and avoid strong shocks.

A strong shock may cause trouble. When carrying or transporting the unit, protect the keyboard and switches with soft materials.

3 Keep the unit free of liquids, dust, particles etc.

Do not allow bits and pieces to get between the keys, especially metallic objects such as hairpins, sewing needles or coins. Also, do not wet the unit.

4 Never attempt to modify any parts of the unit.

The unit is a precision piece, made up of electronic parts. Any modification of, or tampering with, inner parts may cause trouble or accidents.

5 Do not use a lacquer thinner or similar chemical.

Clean the keyboard with soft cloth dampened with a mild detergent. (Soak the cloth in a detergent and squeeze until almost dry.)

6. In case of malfunction.....

When the unit does not work properly, check whether switches, connections, etc. are set correctly as indicated in the troubleshooting chart on page 24 of this manual. If the unit still doesn't work, please contact the original retailer or nearby dealer. Never attempt to repair it yourself. It may result in serious damage of components.

Specifications

Model:	Casitone MT-68
Number of keys:	49 keys, 4 octaves (mini-keyboard)
Chords:	8-note polyphonic (simultaneous sounds: 8 notes at max.)
Preset sounds:	20 sounds; organ, flute, trumpet, oboe, violin, piano, harpsichord, celesta, mandolin, funny, pipe organ, horn, accordion, cello, electric piano, vibraphone, harp, electric guitar, cosmic tone.
Sound effect:	Vibrato, Delayed Vibrato, Sustain, Reverb.
Built-in rhythms:	12 rhythms; rock, pops, disco, 16 beat, swing, latin swing, bossa-nova, samba, beguine, tango, waltz, slow rock * Start/Stop Button, Synchro Start Button, Tempo Control Knob, Accompaniment Volume Knob, Rhythm Volume Control Knob, Tempo Indicator Lamp, Fill-in Button.
Auto-accompaniment function: (Casio Chord System)	Manual Bass Switch (OFF/ON) Casio Chord Switch (OFF/FINGERED/ON) Arpeggio Switch (OFF/ON) Bass Variation Switch (I/II/III/IV) Chord Variation Switch (I/II/III/IV) Arpeggio Variation Switch (I/II/III/IV)
Modulation function:	Modulation I, II.
Pitch control:	$\pm 1/4$ tone (± 50 cents)
Built-in speaker:	8cm (3-1/8") dia. x 1 (output 1.0 W)
Output jack:	Output impedance = 2.8 k Ω Output voltage = 1V max.

Power source:	3-way AC/DC power source;
	• AC: 100, 117, 220 or 240V ($\pm 10V$), 50/60Hz, with optional AC Adaptor AD-1. • DC: Five D size manganese dry batteries.
	Batteries life: High performance manganese dry batteries (SUM-1) last about 25 hours.
	• Car battery: Power taken via Car Battery adaptor CA-1 (optional accessory).
Power consumption:	2 W
Dimensions:	71 (H) x 633 (W) x 188 (D) mm (2-13/16" (H) x 24-15/16" (W) x 7-3/8" (D))
Weight:	2.6 kgs (5.7 lbs)

* Design and specifications may be subject to change without notice.

GUIDELINES LAID DOWN BY FCC RULES FOR USE OF THE UNIT IN THE U.S.A. (not applicable to other areas).

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which

can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- reorient the receiving antenna
- relocate the computer with respect to the receiver
- move the computer away from the receiver
- plug the computer into a different outlet so that computer and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the US Government Printing Office, Washington, D.C., 20402, Stock No. 004-000-00345-4.